## Work Order ID 97235 ]

February-14-13 1:14:59 PM

**Quality Control** 

\*97235\*

Item ID: D2022-101 Accept \*N900040100\* Setup Start **Revision ID:** Item Name: Spacer **Start Otv:** 50.00 \*50\* Start Date: 2/14/13 **Cust Item ID:** Required Date: 2/22/13 Rea'd Otv: 50.00 \*50\* Customer: Reference: Run Process Plan: MLJ Date: 13-02-15 Tooling: **Approvals:** Date: OC: Date: SPC (Y/N): Date: Sequence ID/ Operation Tool ID Set Up/ Tool # Plan Reject Reiect Accept Insp. Work Center ID Qty Number Stamp Description Code Otv **Run Hours** Draw Nbr **Revision Nbr** D2022 rev 97.01.14 100 0.00 \$13-02-20 \*100\* 0.00 Hardinge Memo Note:.257" dia drill Hardinge CNC Lathe Small 1-Turn as per folio FA206 & dwg FOLIO REV: AA DWG REV: N/A 2-Deburr as required 110 OC2- Inspect parts off machine FAI/FAIB 0.00 1/13-02-20 OC 0.00 Memo

DQA: Date: **WORK ORDER NON-CONFORMANCE / UPDATE** NCR: Yes / No QA Closed: Date: **AGAINST DEPARTMENT/PROCESS** DISPOSITION Work Order: Engineering Crosstube Water Jet Skid-tube Rework Prod. Eng. Coor. Quality Machining Small Fab Scrap Part No. Other Rec/Store/Packaging Thermoforming Finishing Use-as-is Work Order Update Supplier Large Fab Composite NCR No. Sign & Description of work order update Initial Action Root or Non-conformance Chief Eng Description Date Verification QC Inspector Date Step Qtv Cause Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Ovalized Pressure/Forced Bend Grain Bending Temperature/Cure Over/Under tolerance Centre Not Concentric to O/S BOM/Route Hardware Weld Part Incorrect Broken/Damaged Inspection Incomplete Cracks Wrong Stock Pulled Part Lost/Missing Instructions Incomplete/Unclear Crushed/Crimped Burrs

Maintenance

Out of Calibration

**Out of Sequence** 

Outside Dimensions

Mislabeled

Misread

Offset

Contamination

Countersink

Cut Too Short

**Drill Holes** 

Drawing

Finish

Folio

Part Moved

Positioned Wrong

Power Loss/Surge

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

**Turning Sequence** 

Wave/Twist in Tube

Cuffs

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

\*97235\*

Page 2

February-14-13 1:14:59 PM Item ID: D2022-101 Accept \*N900040100\* Setup Start Revision ID: Item Name: Spacer **Start Oty: 50.00** \*50\* **Start Date:** 2/14/13 Cust Item ID: Required Date: 2/22/13 Rea'd Otv: 50.00 **Customer:** Reference: Run Approvals: Process Plan: Date: Tooling: Date: Stop OC: Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Accept Reject Insp. Work Center ID Description Code Qty Number Stamp **Run Hours** Qty 120 OC8- Inspect parts - second check 0.00 13.2.20 56 9 \*120\* 0.00 Memo **Ouality Control** 130 Identify as per dwg & Stock Location: \*120\* Packaging 0.00 Memo Packaging 140 QC21- Final Inspection - Work Order Release 0.00 \*140\* 0.00 Memo Quality Control

Date: DQA: **WORK ORDER NON-CONFORMANCE / UPDATE** NCR: Yes / No. OA Closed: Date: **AGAINST DEPARTMENT/PROCESS** DISPOSITION Work Order: Water Jet Engineering Skid-tube Crosstube Rework Prod. Eng. Coor. Quality Machining Small Fab Part No. Scrap Other Rec/Store/Packaging Thermoforming Finishing Use-as-is Composite Supplier Large Fab Work Order Update NCR No. Description of work order update Action Sign & Initial Root Chief Eng Description Date Verification QC Inspector or Non-conformance Date Step Qty Cause Doc/Data Equip/Tooling Operator Material Setup Other **Process** Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Pressure/Forced Grain Ovalized Bend Bending Temperature/Cure BOM/Route Hardware Over/Under tolerance Centre Not Concentric to O/S Weld Part incorrect Broken/Damaged Inspection Incomplete Cracks Wrong Stock Pulled Part Lost/Missing Instructions Incomplete/Unclear Crushed/Crimped Burrs Maintenance Part Moved Cuffs Contamination

Mislabeled

Out of Calibration

Out of Sequence

**Outside Dimensions** 

Misread

Offset

Countersink

Cut Too Short

**Drill Holes** 

Drawing Finish

Folio

Positioned Wrong

Power Loss/Surge

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Ripples in Bend

**Turning Sequence** 

Wave/Twist in Tube

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

**Picklist Print** Page 1 February-14-13 10:54:21 AM 97235 Work Order ID: **Start Date: 2/14/13** Required Date: 2/22/13 Parent Item: D2022-101 Parent Item Name: **Start Oty: 50.00** Required Oty: 50.00 Spacer IPP D02.03.07 Now made in house NG Comments: Component Item ID/ Replacement Unit of Qty on Qty per Kit Total Date Status Mfg/ Last Qty Bin Primary Route Measure Hand Item Name Item ID Location Issued Issued Seq ID Purch Item Location Oty 1.701, 1.5 M6061T6R0.750 f 51.5180 No 100 Purchased Sf 13-02-20 6061-T6 Round Bar 750" Loc Qty Loc Code Location MAT012 13 120734 13 MAT013 38.518

> 121282 122081

123757

9.024

26.494

3

1.701

DQA: Date: **WORK ORDER NON-CONFORMANCE / UPDATE** NCR: Yes / No QA Closed: Date: AGAINST DEPARTMENT/PROCESS DISPOSITION Work Order: Engineering Water Jet Crosstube Rework Skid-tube Machining Small Fab Prod. Eng. Coor. Quality Scrap Part No. Rec/Store/Packaging Other Thermoforming Finishing Use-as-is Supplier Composite NCR No. Work Order Update Large Fab Action Sign & Description of work order update Initial Root **Chief Eng** Date Verification QC Inspector Description Qty or Non-conformance Date Step Cause Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Pressure/Forced

BOM/Route Over/Under tolerance Temperature/Cure Hardware Centre Not Concentric to O/S Part Incorrect Broken/Damaged Inspection Incomplete Weld Cracks Wrong Stock Pulled Part Lost/Missing Crushed/Crimped Burrs Instructions Incomplete/Unclear Part Moved Cuffs Contamination Maintenance Positioned Wrong Mislabeled Heat Treat Countersink Other Power Loss/Surge Misread **Cut Too Short** Inspection Strip in Tube Offset **Drill Holes** Ripples in Bend Drawing Out of Calibration **Torque Waves in Extrusion** Out of Sequence Finish **Turning Sequence** Wave/Twist in Tube Folio Outside Dimensions

Grain

Ovalized

Bending

Bend

DART AEROSPACE LTD	Work Order:	97235	
Description: Spacer	Part Number:	D2022-101	
Inspection Dwg: D2022 Rev: -		Page 1 of 1	

## FIRST ARTICLE INSPECTION CHECKLIST

	X	First Arti	cle _	Prot	otype	
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.226	+/-0.010	0227			5608	Vern
0.032 x 45°	+/-0.010	028 X45°			\	
0.740	+/-0.010	, 738				
Ø0.257	+0.005/-0.000	.227 .028 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	/		V	

		1	
Measured by:	Audited by:	Prototype Approval:	N/A
Date: 13-02-2	O Date: 3 - 2 - 20	Date:	N/A

Rev	Date	Change	Revised by	Approved
Α	04.10.05	New Issue	KJ/JLM	

RELEASED

. 7226 SUBJ CHAMFER TYP.

SHOP COLY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO THE TOWNENT

WITHOUT A SINCE

WORK ORDER

NO. 97235MC5

D2022-101

DRILL F (.257) DIA IN -101 DRILL P (.323) DIA IN -103

MAT'L: ALUMINUM 6061-T6 (QQ-A-225/8)

Correction of the contraction of

SPACER 5/16 ALUM GOGI-TG 501-55050 3\025-4-ao DS055-101 SPACER YA ALUM GOGI-TG 8/025-14-00 ITEM DESCRIPTION SPEC\_/VENDOR REVISION RIVET CODE SHALL BE PER NAS 523 THIS DRAWING IS PROVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITIES IT IS NOT TO BE USED FOR ANY PURPOSE OR COMED ON COMMERICATED TO ANY OTHER I CONTRACT NO. **APPROVAL** DRAWN DIA DASH NO MANEAD HEAR SIDE FANEAD FAR SIDE DART AERO ACCESSORIES INC APPROVED BRDDLEY RECURREMENTS - UNLESS OTHERWISE SPECIFIED D-DIMPLE DIGIT+NO OF SHEETS C-COUNTERSINK LENGTH DASH NO. DESCRIPTION DIMENSIONS ARE IN INCHES 1. SUPPLE ROUGHNESS 720-1. REMOVE SHAUT EDGES DIS MAX 1. THERADS FER ME, S - 7742 HOLES PER AND 10387 BRADLEY BASIC CODES マタヨン タマご CHANGE OCCUED CLIENT REPORT ALL DISCREPANCIES - DO NOT SCALE SHT & OF 1

72022